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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,585	06/19/2001	John G. McDonough	TI-31693	2579

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EXAMINER	
TORRES, JUAN A	

ART UNIT	PAPER NUMBER
2631	

DATE MAILED: 08/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 09/884,585	**Applicant(s)** MCDONOUGH ET AL.	
	Examiner Juan A. Torres	**Art Unit** 2631	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 02 August 2005 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: _____.
   Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 08/02/2005 have been fully considered but they are not persuasive.

Regarding claim 1:

The Applicant contends, "Storm do not disclose selecting a plurality of phase-shifting masks in response to the first time interval."

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses selecting a plurality of phase-shifting masks in response to the first time interval (figure 2 block 214 column6 lines 44-46 and column 6 lines 58-60). "The masks correspond to individual phases of the phase space of the pilot signals in the communication system 100 " (column 6 lines 58-60). "all channels transmitted by the base station are spread using a pseudorandom noise (PN) sequence, also referred to as the pilot sequence. The base station 102 and all base stations in the communication system 100 are uniquely identified by using a unique starting phase, also referred to as a starting time or phase shift, for the pilot channel sequence "(column 4 lines 36-42). "At step 514, the NRT clock rate is selected and applied to the NRT LSG 208 for processing the samples. The mask of interest is applied to the contents of the NRT LSG 208 at step 516 and at step 518, the samples are processed. During step 518, steps corresponding to step 402-step 422 in FIG. 4 are performed. After the buffer full of samples is processed, at step 520 it is determined if there are more pilot signals of interest. For example, after waking from a slotted mode sleep time, the searcher

receiver 114 has a list of active pilots, a list of candidate pilots and a list of neighbor pilots to scan for pilot signal energy to locate suitable pilot signals for finger assignment. If there are more pilots of interest, at step 522, the initial state of the NRT LSG 208 which was stored in the register 214 is loaded into the NRT LSG 208, resetting the NRT LSG 208 to an initial condition and a new mask is loaded in the mask circuit 210, shifting the NRT LSG to a next state. The next state of the NRT LSG corresponds to a next pilot of interest. Other suitable ways of shifting the NRT LSG state include calculating the next state of the NRT LSG and incrementing or decrementing the NRT LSG to produce the next state of the NRT LSG. Also, at step 522, the read/write pointer 222 of sample buffer 202 is reset to 0, and the slew counter 217 is reset. This corresponds to resetting the NRT LSG to an initial condition using the timing reference value. The mask for the next pilot of interest is loaded at step 516. Step 516-step 522 are repeated until all pilots of interest have been processed. The method ends at step 524" (column 10 lines 29-56).

The Applicant contends, "Storm et al. discloses selecting a single mask and incrementing the NRT LSG to achieve the PN proper offset from an initial state stored in register 214. Storm et al. do not disclose selecting a plurality of phase-shifting masks in response to the first time interval"

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses selecting a plurality of phase-shifting masks (correspond to individual phases of the phase space of the pilot signals) in response to the first time (if there are more pilots of interest, at step 522, the initial state of the NRT LSG 208 which

was stored in the register 214 is loaded into the NRT LSG 208, resetting the NRT LSG 208 to an initial condition) interval (figure 2 block 214 column6 lines 44-46 and column 6 lines 58-60). "The ***masks*** correspond to individual phases of the phase space of the pilot signals in the communication system 100 " (column 6 lines 58-60). "all channels transmitted by the base station are spread using a pseudorandom noise (PN) sequence, also referred to as the pilot sequence. The base station 102 and all base stations in the communication system 100 are uniquely identified by using a unique starting phase, also referred to as a starting time or phase shift, for the pilot channel sequence "(column 4 lines 36-42). "At step 514, the NRT clock rate is selected and applied to the NRT LSG 208 for processing the samples. The mask of interest is applied to the contents of the NRT LSG 208 at step 516 and at step 518, the samples are processed. During step 518, steps corresponding to step 402-step 422 in FIG. 4 are performed. After the buffer full of samples is processed, at step 520 it is determined if there are more pilot signals of interest. For example, after waking from a slotted mode sleep time, the searcher receiver 114 has a list of active pilots, a list of candidate pilots and a list of neighbor pilots to scan for pilot signal energy to locate suitable pilot signals for finger assignment. If there are more pilots of interest, at step 522, the initial state of the NRT LSG 208 which was stored in the register 214 is loaded into the NRT LSG 208, resetting the NRT LSG 208 to an initial condition and a new mask is loaded in the mask circuit 210, shifting the NRT LSG to a next state. The next state of the NRT LSG corresponds to a next pilot of interest. Other suitable ways of shifting the NRT LSG state include calculating the next state of the NRT LSG and incrementing or

decrementing the NRT LSG to produce the next state of the NRT LSG. Also, at step 522, the read/write pointer 222 of sample buffer 202 is reset to 0, and the slew counter 217 is reset. This corresponds to resetting the NRT LSG to an initial condition using the timing reference value. The mask for the next pilot of interest is loaded at step 516. Step 516-step 522 are repeated until all pilots of interest have been processed. The method ends at step 524" (column 10 lines 29-56).

The Applicant contends, "Storm do not disclose shifting the PN code first phase with each phase-shifting mask from the plurality of selected phase-shifting masks"

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses shifting the PN code first phase with each phase-shifting mask from the plurality of selected phase-shifting masks (figure 2 block 210 column 6 lines 53-64, column 7 lines 54-58). "The masks correspond to individual phases of the phase space of the pilot signals in the communication system 100 " (column 6 lines 58-60). "all channels transmitted by the base station are spread using a pseudorandom noise (PN) sequence, also referred to as the pilot sequence. The base station 102 and all base stations in the communication system 100 are uniquely identified by using a unique starting phase, also referred to as a starting time or phase shift, for the pilot channel sequence "(column 4 lines 36-42).

Regarding claim 15:

The Applicant contends, "Storm et al. do not disclose an application means to determine a first time interval, the application means cross-referencing the 6mt time interval to the plurality of phase-shifting masks."

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses an application means to determine a first time interval (column 6 line 56), the application means cross-referencing the first time interval to the plurality of phase-shifting masks (column 6 lines 58-60). "The mask circuit 210 employs a predetermined mask that, when Exclusive-ORed with the contents of the NRT LSG 208, yields the correct state of the PN generator 205 at a predetermined time in the future. The mask circuit 210 is loaded with any mask stored in the mask register 212, such as mask 1, mask 2, . . . mask M. The masks correspond to individual phases of the phase space of the pilot signals in the communication system 100 (FIG. 1)". "all channels transmitted by the base station are spread using a pseudorandom noise (PN) sequence, also referred to as the pilot sequence. The base station 102 and all base stations in the communication system 100 are uniquely identified by using a unique starting phase, also referred to as a starting time or phase shift, for the pilot channel sequence "(column 4 lines 36-42).

The Applicant contends, "Storm et al. do not disclose the PN code generator offsetting a PN code with each phase-shifting mask of the plurality of phase-shifting masks"

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses the PN code generator offsetting a PN code with each phase-shifting mask of the plurality of phase-shifting masks (column 6 line 56). "The mask circuit 210 employs a predetermined mask that, when Exclusive-ORed with the contents of the NRT LSG 208, yields the correct state of the PN generator 205 at a

predetermined time in the future. The mask circuit 210 is loaded with any mask stored in the mask register 212, such as mask 1, mask 2, . . . mask M. The masks correspond to individual phases of the phase space of the pilot signals in the communication system 100 (FIG. 1)". "At step 514, the NRT clock rate is selected and applied to the NRT LSG 208 for processing the samples. The mask of interest is applied to the contents of the NRT LSG 208 at step 516 and at step 518, the samples are processed. During step 518, steps corresponding to step 402-step 422 in FIG. 4 are performed. After the buffer full of samples is processed, at step 520 it is determined if there are more pilot signals of interest. For example, after waking from a slotted mode sleep time, the searcher receiver 114 has a list of active pilots, a list of candidate pilots and a list of neighbor pilots to scan for pilot signal energy to locate suitable pilot signals for finger assignment. If there are more pilots of interest, at step 522, the initial state of the NRT LSG 208 which was stored in the register 214 is loaded into the NRT LSG 208, resetting the NRT LSG 208 to an initial condition and a new mask is loaded in the mask circuit 210, shifting the NRT LSG to a next state. The next state of the NRT LSG corresponds to a next pilot of interest. Other suitable ways of shifting the NRT LSG state include calculating the next state of the NRT LSG and incrementing or decrementing the NRT LSG to produce the next state of the NRT LSG. Also, at step 522, the read/write pointer 222 of sample buffer 202 is reset to 0, and the slew counter 217 is reset. This corresponds to resetting the NRT LSG to an initial condition using the timing reference value. The mask for the next pilot of interest is loaded at step 516. Step 516-step 522

are repeated until all pilots of interest have been processed. The method ends at step 524" (column 10 lines 29-56).

Regarding claim 25:

The Applicant contends, "

Examiner's proposed modification of Storm et al. Easton et al. must have a reasonable expectation of success. There is no disclosure by Storm et al. to suggest compatibility with slotted paging sleep intervals of Easton et al. "

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, The suggestion/motivation for doing so would have been to save power in the slotted mode sleep interval avoiding gross PN sequence misalignment and (Easton column 8 lines 45-56)."The preferred embodiment just described is one of a more general class of timelines in which the programmed sleep interval is not an integral multiple of the PN sequence period. In these cases, to avoid gross PN sequence misalignment, a change in PN masks corresponding to the change in alignment (6.66 ms in the example above) is needed. Instead of the a mask derived from the transmitter PN offset alone, the programmed mask value consists of a base PN offset derived from the transmitter PN offset combined with a phasor component tracking the remainder of the programmed sleep intervals integrated across all previous slots modulo a PN sequence period. Alternately the finger's PN state and time counter can be adjusted, either through a direct write of the value factoring in this same remainder, or indirectly through a timing adjustment commanded by the microprocessor".

The Applicant contends, "Storm do not disclose selecting a plurality of phase-shifting masks in response to the first time interval."

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses selecting a plurality of phase-shifting masks in response to the first time interval (figure 2 block 214 column6 lines 44-46 and column 6 lines 58-60). "The masks correspond to individual phases of the phase space of the pilot signals in the communication system 100 " (column 6 lines 58-60). "all channels transmitted by the base station are spread using a pseudorandom noise (PN) sequence, also referred to as the pilot sequence. The base station 102 and all base stations in the communication system 100 are uniquely identified by using a unique starting phase, also referred to as a starting time or phase shift, for the pilot channel sequence "(column 4 lines 36-42). "At step 514, the NRT clock rate is selected and applied to the NRT LSG 208 for processing the samples. The mask of interest is applied to the contents of the NRT LSG 208 at step 516 and at step 518, the samples are processed. During step 518, steps corresponding to step 402-step 422 in FIG. 4 are performed. After the buffer full of samples is processed, at step 520 it is determined if there are more pilot signals of interest. For example, after waking from a slotted mode sleep time, the searcher receiver 114 has a list of active pilots, a list of candidate pilots and a list of neighbor pilots to scan for pilot signal energy to locate suitable pilot signals for finger assignment. If there are more pilots of interest, at step 522, the initial state of the NRT LSG 208 which was stored in the register 214 is loaded into the NRT LSG 208, resetting the NRT LSG 208 to an initial condition and a new mask is loaded in the mask circuit 210,

shifting the NRT LSG to a next state. The next state of the NRT LSG corresponds to a next pilot of interest. Other suitable ways of shifting the NRT LSG state include calculating the next state of the NRT LSG and incrementing or decrementing the NRT LSG to produce the next state of the NRT LSG. Also, at step 522, the read/write pointer 222 of sample buffer 202 is reset to 0, and the slew counter 217 is reset. This corresponds to resetting the NRT LSG to an initial condition using the timing reference value. The mask for the next pilot of interest is loaded at step 516. Step 516-step 522 are repeated until all pilots of interest have been processed. The method ends at step 524" (column 10 lines 29-56).

The Applicant contends, "Storm do not disclose offsetting the PN code first phase with each phase-shifting mask from the plurality of selected phase-shifting masks"

The Examiner disagrees and asserts, that, as indicated in the previous Office Action, Storm discloses offsetting the PN code first phase with each phase-shifting mask from the plurality of selected phase-shifting masks (figure 2 block 210 column 6 lines 53-64, column 7 lines 54-58). "The masks correspond to individual phases of the phase space of the pilot signals in the communication system 100 " (column 6 lines 58-60). "all channels transmitted by the base station are spread using a pseudorandom noise (PN) sequence, also referred to as the pilot sequence. The base station 102 and all base stations in the communication system 100 are uniquely identified by using a unique starting phase, also referred to as a starting time or phase shift, for the pilot channel sequence "(column 4 lines 36-42).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan A. Torres whose telephone number is (571) 272-3119. The examiner can normally be reached on Monday-Friday 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad H. Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Juan Alberto Torres, Ph. D.
08-09-2005

KEVIN BURD
PRIMARY EXAMINER